

## CHAMBERS CREEK BASIN

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## 12091200 LEACH CREEK NEAR FIRCREST, WA

LOCATION.--Lat 47°13'18", long 122°30'29", in lot 24, block 14, SE  $\frac{1}{4}$  NE  $\frac{1}{4}$  sec.14, T.20 N., R.2 E., Pierce County, Hydrologic Unit 17110019, on left bank 1.0 mi south of Fircrest, and 2 mi upstream from mouth.

DRAINAGE AREA.--4.73 mi<sup>2</sup> includes 0.68 mi<sup>2</sup> storm drainage from Flett Creek basin.

PERIOD OF RECORD.--March 1957 to September 1985, October 1985 to April 1988 (seasonal records), October 1988 to current year.

REVISED RECORDS.--WSP 1932: Drainage area.

GAGE.--Water-stage recorder, metal weir control, and crest-stage gage. Prior to Oct. 19, 1979, at site 20 ft downstream at same datum. Datum of gage is 222.98 ft above sea level (levels by U.S. Geological Survey National Mapping Division).

REMARKS.--Records fair except for flows below 3 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Since Oct. 1, 1961, flow may be regulated at dam upstream from station. Low flows supplemented from well in basin beginning June 30, 1993. Storage is not retained. Excess stormwater runoff pumped into Nalley Valley since early 1992. Drainage into basin influenced by urbanizing of area. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1958-85, 1989-2001), 4.71 ft<sup>3</sup>/s, 13.54 in/yr, 3,410 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft<sup>3</sup>/s Nov. 24, 1990, gage height, 5.76 ft, from rating curve extended above 200 ft<sup>3</sup>/s; minimum discharge, 0.1 ft<sup>3</sup>/s Sept. 22, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 76 ft<sup>3</sup>/s June 11, gage height, 2.25 ft; minimum recorded discharge, 1.6 ft<sup>3</sup>/s Sept. 19-21, but may have been the same or less during period Sept. 22-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.7	2.3	2.5	2.5	2.6	7.9	6.2	13	2.5	2.9	2.7	3.3
2	e2.1	2.2	8.6	2.2	5.6	4.7	13	2.6	3.3	2.8	3.1	2.7
3	e2.1	2.2	2.5	9.6	4.0	2.6	3.1	2.4	2.0	2.8	5.3	2.9
4	e2.1	4.4	2.4	15	19	2.4	2.5	2.4	2.0	2.8	e3.3	2.7
5	e2.1	2.9	2.4	16	3.5	2.4	5.3	2.3	2.4	2.8	e2.6	2.7
6	2.0	7.0	2.4	2.8	3.0	2.3	3.2	2.2	2.4	2.8	e2.6	2.8
7	2.1	2.6	2.4	2.3	2.2	2.7	2.3	2.2	2.0	2.8	e2.6	2.7
8	2.1	24	2.4	3.0	9.9	3.8	2.4	2.1	2.8	2.7	e2.6	2.7
9	14	17	2.7	2.2	3.2	2.9	2.2	2.1	5.4	2.7	e2.6	2.8
10	11	2.9	2.3	2.2	2.3	2.8	20	2.0	2.7	2.7	e2.6	2.8
11	2.1	2.5	2.3	2.0	2.1	2.3	6.6	2.0	35	2.7	2.6	2.7
12	2.0	2.4	2.3	2.0	2.0	2.2	2.6	2.1	2.8	2.7	2.6	e2.8
13	4.6	2.4	2.3	5.6	2.0	4.4	2.4	2.6	2.2	2.7	2.6	e2.7
14	2.2	2.3	7.6	2.4	2.0	2.4	2.3	23	2.0	2.7	e2.7	e2.7
15	2.1	2.3	2.8	2.2	2.5	9.8	2.2	14	2.6	2.7	e2.6	e2.7
16	20	2.2	17	2.0	13	2.9	3.5	4.6	3.0	2.8	e2.6	e2.7
17	5.4	2.2	7.9	3.1	4.2	2.4	10	2.4	3.0	2.7	e2.6	e2.7
18	12	2.3	3.0	4.4	3.7	17	4.3	2.2	2.9	2.7	e2.6	2.7
19	6.3	2.3	3.6	3.7	2.3	5.2	2.4	2.2	2.9	2.7	e2.6	2.2
20	39	2.3	3.8	2.3	2.1	2.6	2.2	2.1	2.9	2.7	e2.6	1.7
21	3.4	2.4	3.9	21	4.9	2.4	2.2	2.0	2.8	2.8	17	e2.2
22	2.5	2.4	14	2.8	2.6	2.3	2.4	2.0	2.8	2.7	38	e2.7
23	2.3	12	14	2.5	2.0	2.3	4.2	2.0	2.8	2.7	26	e2.7
24	2.2	2.8	5.3	3.3	2.0	3.1	2.2	2.0	12	2.7	3.9	e2.7
25	2.2	12	3.8	2.3	1.9	6.3	2.1	2.0	3.5	2.7	3.0	e4.7
26	2.2	14	3.6	2.2	2.0	5.2	2.1	2.0	2.9	2.7	2.8	11
27	2.4	12	3.7	2.1	2.1	13	2.4	2.0	28	2.7	2.7	2.9
28	15	2.9	2.1	3.3	2.5	3.6	6.2	3.5	5.0	6.1	2.7	2.7
29	3.7	3.8	6.6	5.0	---	2.5	5.2	2.0	3.1	2.7	2.7	2.6
30	2.4	4.0	9.7	2.3	---	2.9	23	1.9	3.0	2.7	2.7	2.6
31	2.3	---	9.7	2.1	---	4.8	---	1.9	---	2.6	2.7	---
TOTAL	179.6	159.0	159.6	136.4	111.2	134.1	150.7	113.8	152.7	88.0	160.3	90.5
MEAN	5.79	5.30	5.15	4.40	3.97	4.33	5.02	3.67	5.09	2.84	5.17	3.02
MAX	39	24	17	21	19	17	23	23	35	6.1	38	11
MIN	2.0	2.2	2.1	2.0	1.9	2.2	2.1	1.9	2.0	2.6	2.6	1.7
AC-FT	356	315	317	271	221	266	299	226	303	175	318	180
CFSM	1.22	1.12	1.09	.93	.84	.91	1.06	.78	1.08	.60	1.09	.64
IN.	1.41	1.25	1.26	1.07	.87	1.05	1.19	.90	1.20	.69	1.26	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2001, BY WATER YEAR (WY)

MEAN	4.18	7.16	7.64	7.81	6.72	5.51	4.23	3.12	2.95	2.35	2.50	2.89
MAX	8.60	16.8	15.5	16.3	15.1	12.4	10.3	5.73	5.30	4.58	5.17	6.92
(WY)	1998	1991	1997	1990	1999	1972	1991	1997	1997	1983	2001	1978
MIN	1.57	2.53	3.54	2.80	1.72	2.22	2.09	1.72	1.40	1.33	1.12	1.24
(WY)	1973	1977	1977	1962	1993	1992	1977	1965	1969	1969	1989	

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12091200 LEACH CREEK NEAR FIRCREST, WA--Continued

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1957 - 2001
ANNUAL TOTAL	1877.8	1635.9	
ANNUAL MEAN	5.13	4.48	
HIGHEST ANNUAL MEAN			4.71
LOWEST ANNUAL MEAN			8.15
HIGHEST DAILY MEAN	47	Feb 1	2.61
LOWEST DAILY MEAN	2.0	Oct 6	166 Jan 9 1990
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 2	.50 Sep 1 1972
ANNUAL RUNOFF (AC-FT)	3720	3240	.71 Aug 30 1972
ANNUAL RUNOFF (CFSM)	1.08	.95	3410 1.00
ANNUAL RUNOFF (INCHES)	14.77	12.87	13.54
10 PERCENT EXCEEDS	12	9.9	10
50 PERCENT EXCEEDS	2.8	2.7	2.6
90 PERCENT EXCEEDS	2.3	2.1	1.5

e Estimated